

POWERED BY **Dialog****Powder gun for fire extinguisher - has central purge gas supply to prevent powder deposits****Patent Assignee:** ESB ELEKTROSTAT SPRITZ**Inventors:** VOEHRINGER G F**Patent Family**

| Patent Number | Kind | Date     | Application Number | Kind | Date     | Week   | Type |
|---------------|------|----------|--------------------|------|----------|--------|------|
| DE 3003684    | A    | 19810806 | EP 81900271        | A    | 19810000 | 198133 | B    |
| WO 8102116    | A    | 19810806 |                    |      |          | 198134 |      |
| EP 44842      | A    | 19820203 |                    |      |          | 198206 |      |
| EP 44842      | B    | 19850417 |                    |      |          | 198516 |      |
| DE 3169931    | G    | 19850523 |                    |      |          | 198522 |      |

**Priority Applications (Number Kind Date):** DE 3003684 A ( 19800201)

**Cited Patents:** CH 609585; DE 2509851; DE 2541927; DE 2819666; DE 2852038; FR 2330461; FR 2410514; FR 2435152; GB 1518547; GB 2029271; JP 51045143; JP 54077650; JP 54140842; JP 55034159; NL 7113656; US 4221339 ; US 4228961 ; JP 54148042

**Patent Details**

| Patent   | Kind | Language | Page | Main IPC | Filing Notes |
|--|------|----------|------|----------|--------------|
| DE 3003684   | A    |          | 14   |          |              |
| WO 8102116   | A    | G        |      |          |              |
| Designated States (National): DK JP                      |      |          |      |          |              |
| Designated States (Regional): AT CH DE FR GB LU NL SE    |      |          |      |          |              |
| EP 44842   | A    | G        |      |          |              |
| Designated States (Regional): AT CH DE FR GB LI LU NL SE |      |          |      |          |              |
| EP 44842   | B    | G        |      |          |              |
| Designated States (Regional): AT CH DE FR GB LI LU NL SE |      |          |      |          |              |

**Abstract:**

DE 3003684 A

The powder gun for a fire extinguisher supplies a mixture of powder and gas from nozzle which is distributed by impacting on cone. The cone is supported on a hollow rod through which purging gas can be supplied.

The purging gas is directed by a mushroom head to flow in a radial direction, thus preventing build up of powder deposits on the edge which otherwise takes place. The purge gas normally comes from compressed air supply. A smoke detector operates a valve to change the supply to a Halon ie.

fluorocarbon gas source when required.

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**High-tension supply for electrostatic spray paint gun - uses axial paint delivery conduit to carry high tension supply to contact button at centre of rotating spray head**

**Patent Assignee:** SAMES SA

**Inventors:** DI GIOIA M; PHAM V T; PHAM V

### Patent Family

| Patent Number | Kind | Date     | Application Number | Kind | Date     | Week   | Type |
|---------------|------|----------|--------------------|------|----------|--------|------|
| FR 2706328    | A1   | 19941223 | FR 937296          | A    | 19930617 | 199506 | B    |
| WO 9500250    | A1   | 19950105 | WO 94FR638         | A    | 19940601 | 199507 |      |
| EP 707521     | A1   | 19960424 | EP 94917699        | A    | 19940601 | 199621 |      |
|               |      |          | WO 94FR638         | A    | 19940601 |        |      |
| EP 707521     | B1   | 19970219 | EP 94917699        | A    | 19940601 | 199713 |      |
|               |      |          | WO 94FR638         | A    | 19940601 |        |      |
| DE 69401777   | E    | 19970327 | DE 601777          | A    | 19940601 | 199718 |      |
|               |      |          | EP 94917699        | A    | 19940601 |        |      |
|               |      |          | WO 94FR638         | A    | 19940601 |        |      |
| JP 9502123    | W    | 19970304 | WO 94FR638         | A    | 19940601 | 199719 |      |
|               |      |          | JP 95502492        | A    | 19940601 |        |      |
| ES 2098150    | T3   | 19970416 | EP 94917699        | A    | 19940601 | 199722 |      |

**Priority Applications (Number Kind Date):** FR 937296 A ( 19930617)

**Cited Patents:** DE 1802693; EP 59283 ; GB 2142844; US 3572589

### Patent Details

| Patent  | Kind | Language | Page | Main IPC    | Filing Notes               |
|---|------|----------|------|-------------|----------------------------|
| FR 2706328  | A1   |          | 12   | B05B-005/04 |                            |
| WO 9500250  | A1   |          |      |             |                            |
| Designated States (National): BR CA CN JP KR RU US                            |      |          |      |             |                            |
| Designated States (Regional): AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE |      |          |      |             |                            |
| EP 707521   | A1   | F        | 12   | B05B-005/04 | Based on patent WO 9500250 |
| Designated States (Regional): BE CH DE ES FR GB IT LI NL PT SE                |      |          |      |             |                            |
| EP 707521   | B1   | F        | 6    | B05B-005/04 | Based on patent WO 9500250 |
| Designated States (Regional): BE CH DE ES FR GB IT LI NL PT SE                |      |          |      |             |                            |
| DE 69401777   | E    |          |      | B05B-005/04 | Based on patent EP 707521  |
|   |      |          |      |             | Based on patent WO 9500250 |
|   |      |          |      |             |                            |

|            |    |  |    |             |                            |
|------------|----|--|----|-------------|----------------------------|
| JP 9502123 | W  |  | 11 | B05B-005/04 | Based on patent WO 9500250 |
| ES 2098150 | T3 |  |    | B05B-005/04 | Based on patent EP 707521  |

**Abstract:**

FR 2706328 A

The spray gun has a conduit (2) to supply a coating material, for example a thermo-fusible paint. The conduit opens axially at the base of a spray head (3) rotating at round 60,000 rpm. The spray head has a deflector (5) with its edge forming a charged electrode (32).

The high tension supply (22-26,30-32) passes along the conductive conduit to an axial contact formed between the spray head and a fixed projection (26) at the end of the conduit. The axial contact is formed by a spring-loaded (31) button (30) mounted axially in the rotating head and pressed against the fixed part (26) carried by the conduit.

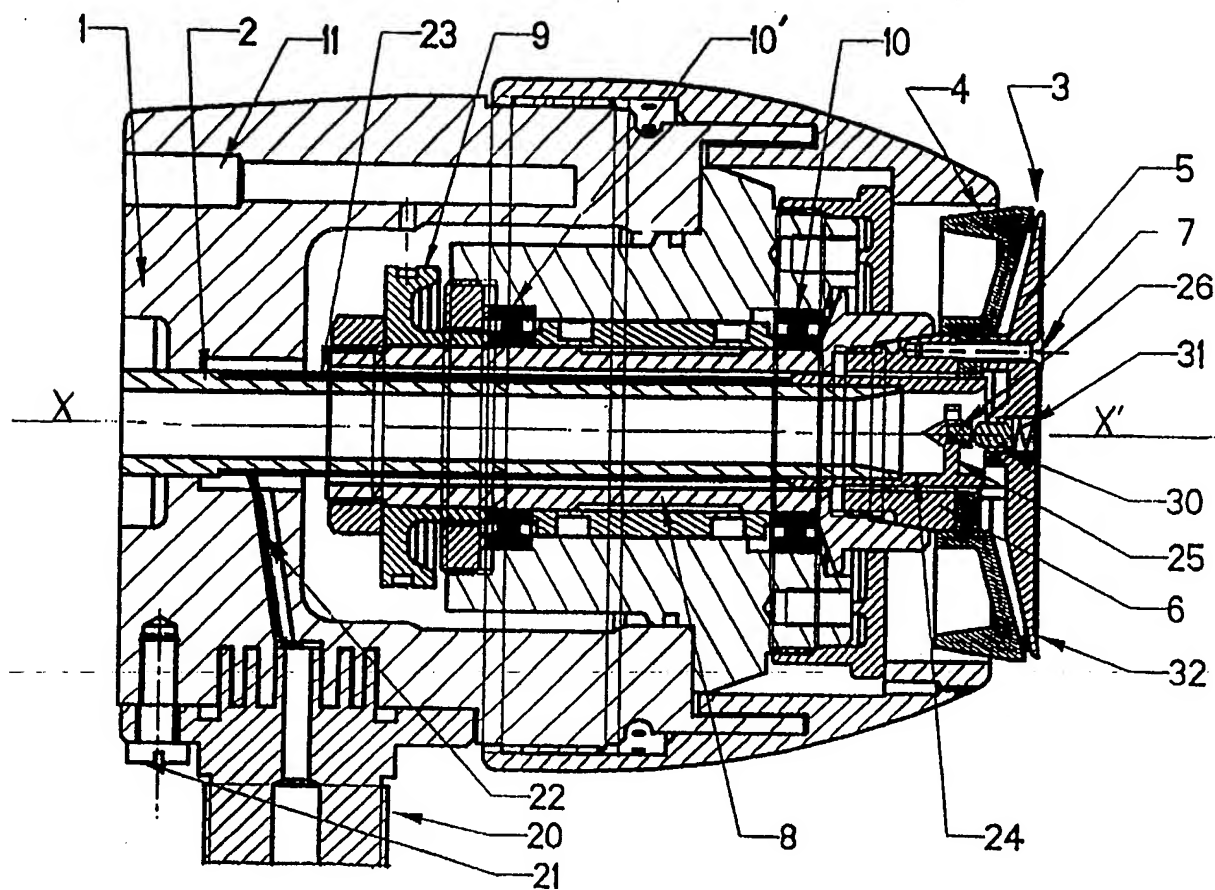
**ADVANTAGE** - Permanent electrical contact giving even distribution of charged spray to produce even coating, with sliding contact positioned at point of lowest sliding velocity to minimise wear.

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EP 707521 B

Electrostatic spraying device for powder coating product comprising a supply conduit (2) for the coating product discharging axially at the rear of a rotary spray-head, characterised in that said circuit (22, 23, 24, 25, 26, 30, 31, 32) comprises an axial contact between said spray-head and a fixed part (26) carried by said conduit.

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